

What is claimed is:

1. A bloodless catheter comprising  
a first hub having a bore at a proximal end;  
a cannula fixed in and extending from an opposite distal end of said hub  
for invasive positioning in a blood vessel; and  
a septum seal mounted in said bore of said hub in circumferentially sealed  
relation to prevent a flow of fluid from said cannula to said proximal end of said hub,  
said seal having a weakened central section.
2. A bloodless catheter as set forth in claim 1 wherein said seal is made of  
elastomeric material.
3. A bloodless catheter as set forth in claim 1 wherein said weakened section  
of said seal has a slit therein to define a valve.
4. A bloodless catheter as set forth in claim 1 wherein said seal is slidably  
mounted in said bore.
5. A bloodless catheter as set forth in claim 1 wherein said seal is mounted  
at one end of said bore with a face thereof exposed for swabbing.
6. A bloodless catheter as set forth in claim 1 further comprising first means  
in said hub for forming a flow path through said weakened section of said seal in  
response to a relative movement between said means and said seal.
7. A bloodless catheter as set forth in claim 6 wherein said first means is a  
tube mounted in said weakened section of said seal and extending into said cannula.
8. A bloodless catheter as set forth in claim 7 wherein said seal has a tubular  
portion receiving said tube in stretch-fit manner and a centrally disposed slit.

9. A bloodless catheter as set forth in claim 7 which further comprises second means for moving said seal over said tube to cause said tube to pass through said weakened section of said seal.

10. A bloodless catheter as set forth in claim 6 wherein said first means is a piercing ring mounted on said seal for pushing through said weakened section of said seal in a direction towards said cannula to define a flow path through said seal.

11. A bloodless catheter as set forth in claim 10 which further comprises second means for moving said piercing ring through said weakened section of said seal.

12. A bloodless catheter as set forth in claim 11 wherein said second means is a male luer adaptor slidably mounted in said bore of said hub in sealed relation and engaging said ring to push said ring through said weakened section of said seal.

13. A bloodless catheter as set forth in claim 6 which further comprises second means for moving said first means relative to said seal.

14. A bloodless catheter as set forth in claim 13 wherein said second means is a male luer adaptor slidably mounted in said bore of said hub in sealed relation and engaging said septum seal in sealed relation.

15. A bloodless catheter as set forth in claim 1 which further comprises  
a needle hub telescopically mounted in said bore of said first hub; and an introducer needle fixed in said needle hub and extending through said seal in sealed relation and through said cannula.

16. A bloodless catheter as set forth in claim 1 which further comprises a guide wire extending through said weakened section of said seal and said cannula.

17. A bloodless catheter as set forth in claim 1 which further comprises a stylet extending through said weakened section of said seal and said cannula.



said piercing ring through said slit in said seal to communicate said adaptor with said cannula.

#69895

FOR OFFICIAL USE ONLY